

FIG. 1

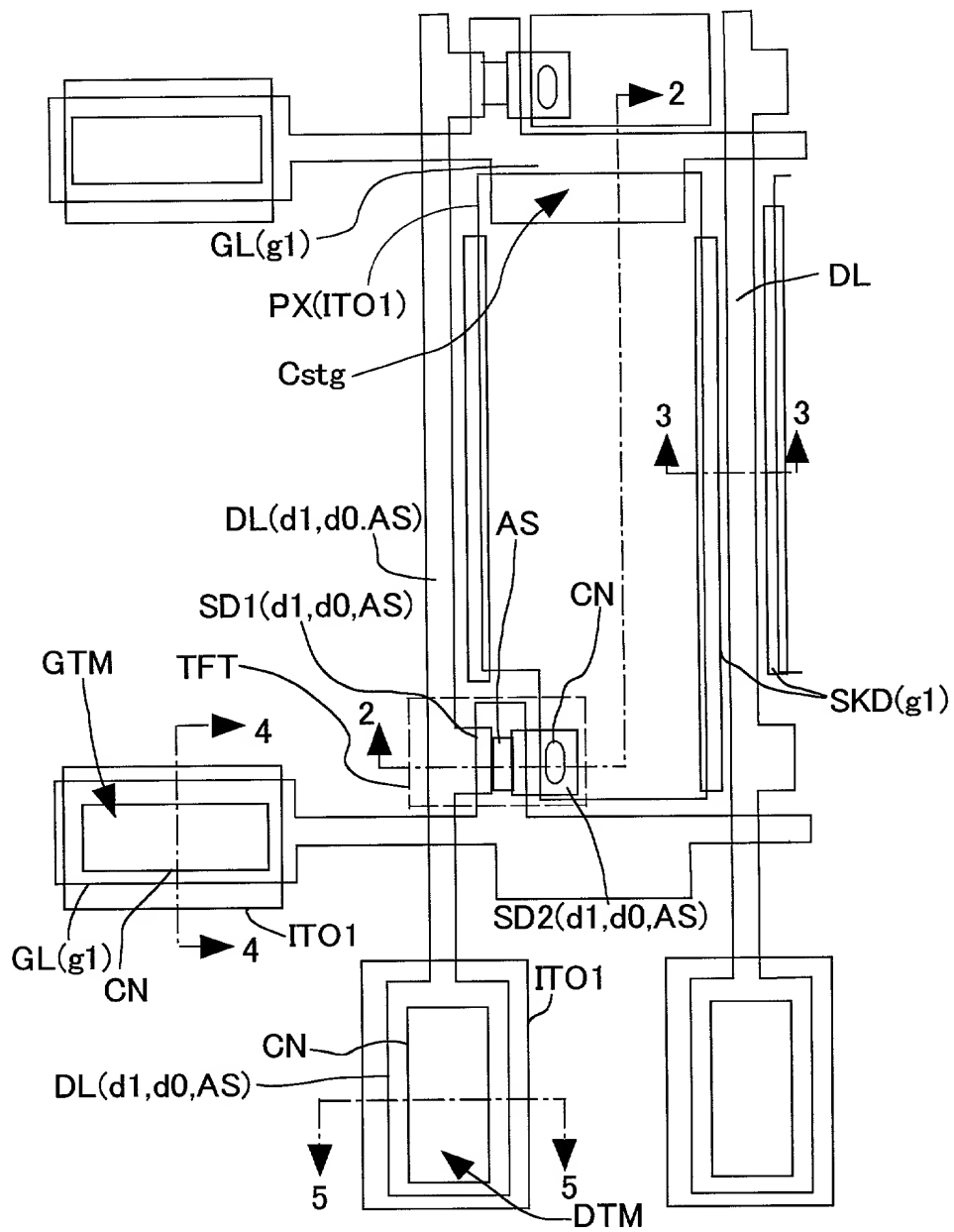


FIG. 2

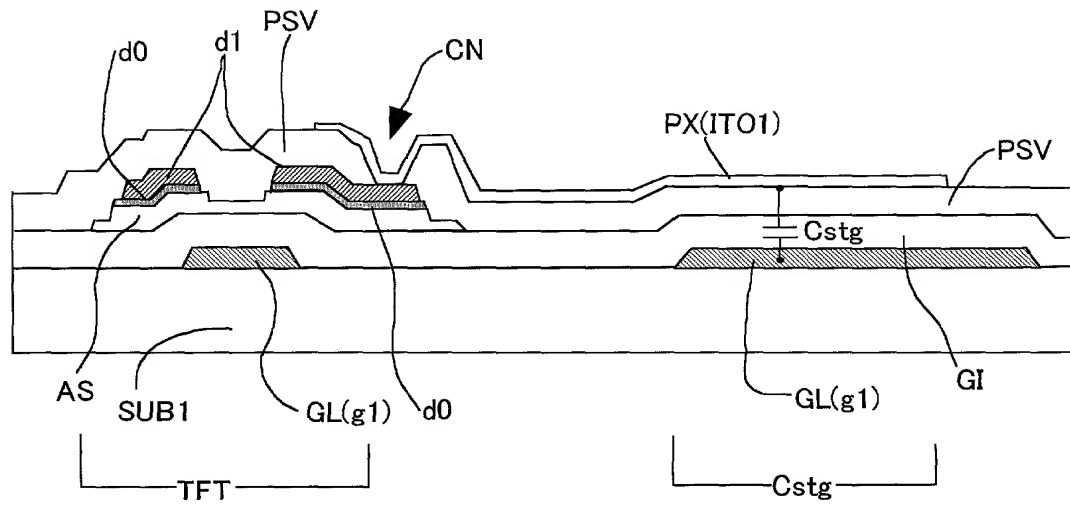


FIG. 3

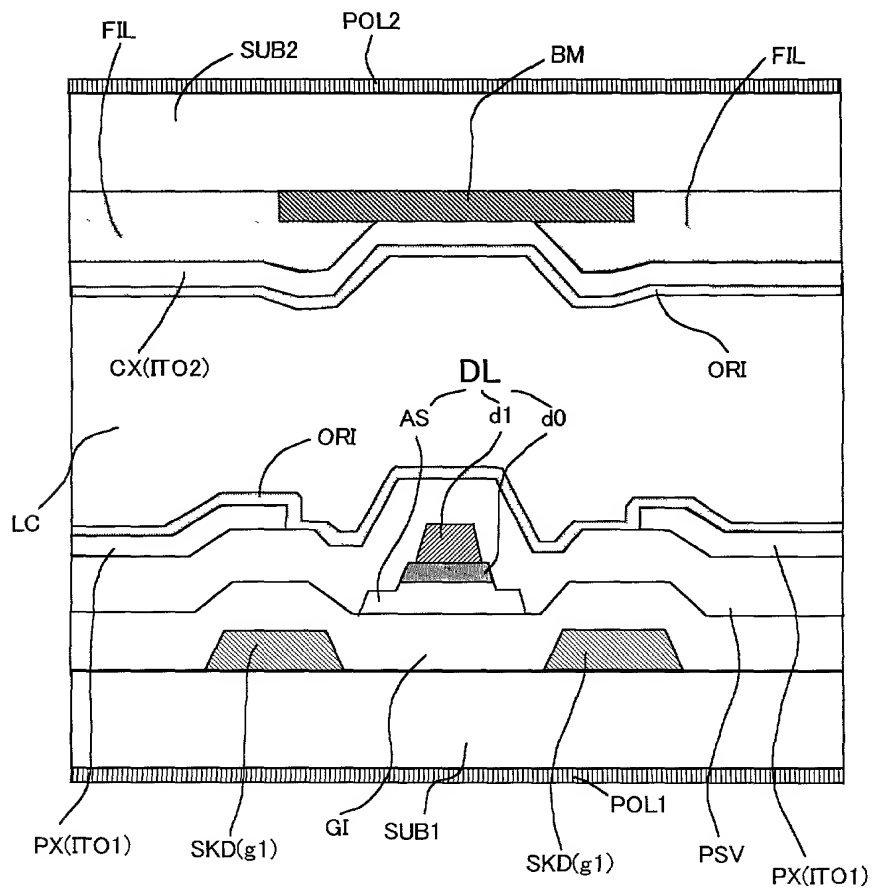


FIG. 4

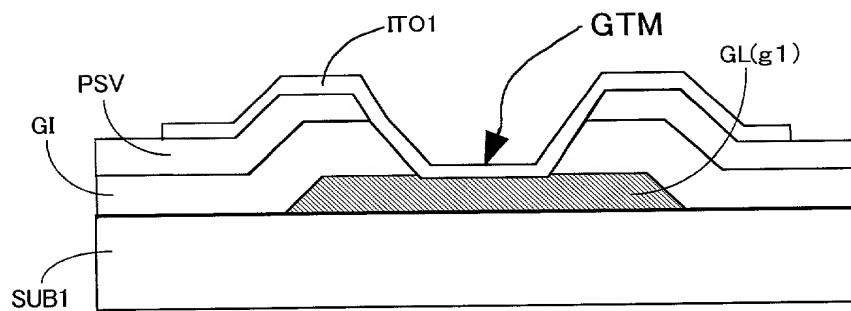


FIG. 5

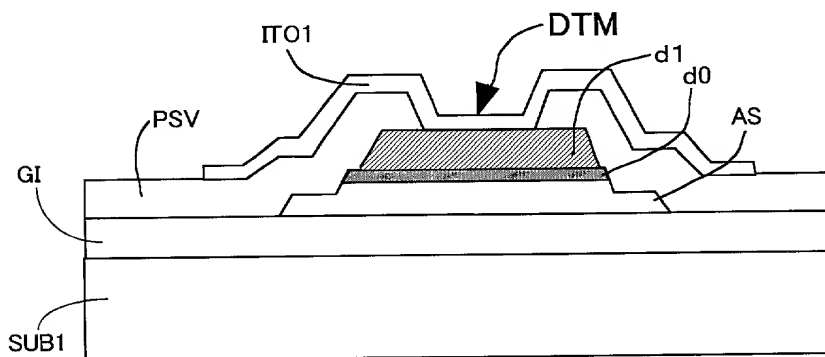


FIG. 6A

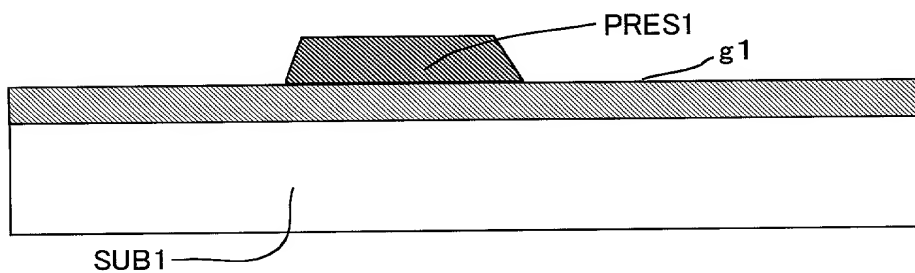


FIG. 6B

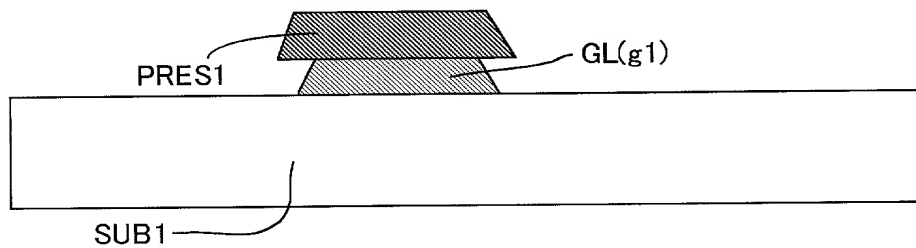


FIG. 8A

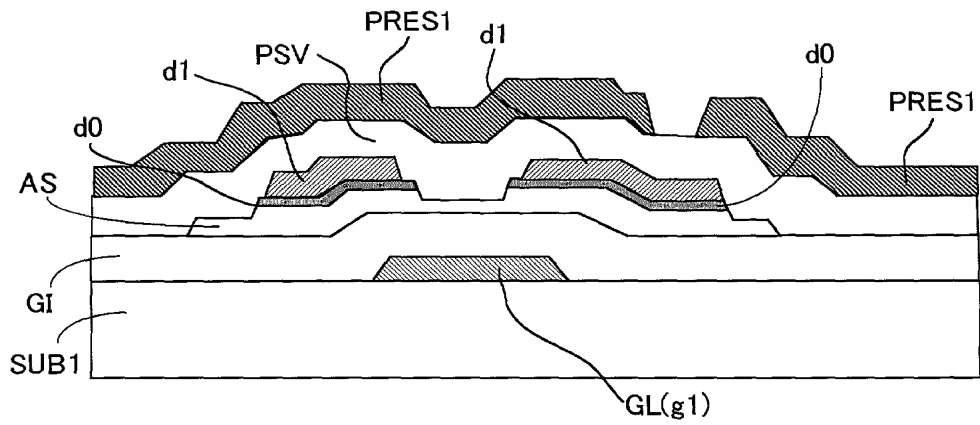
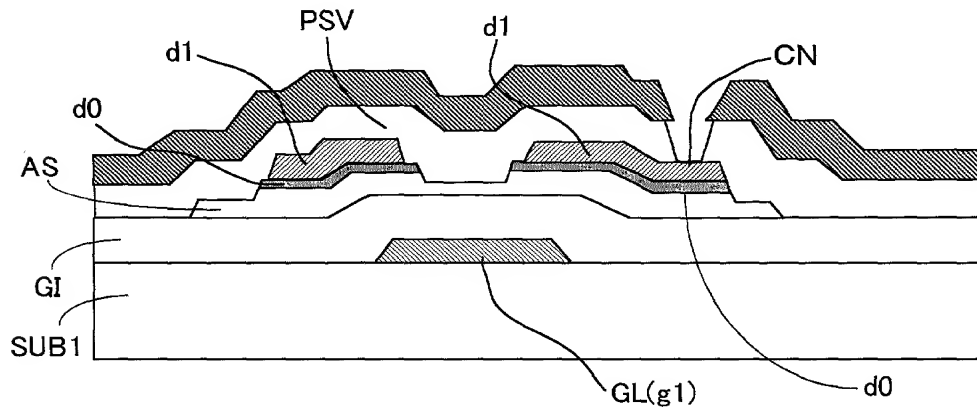


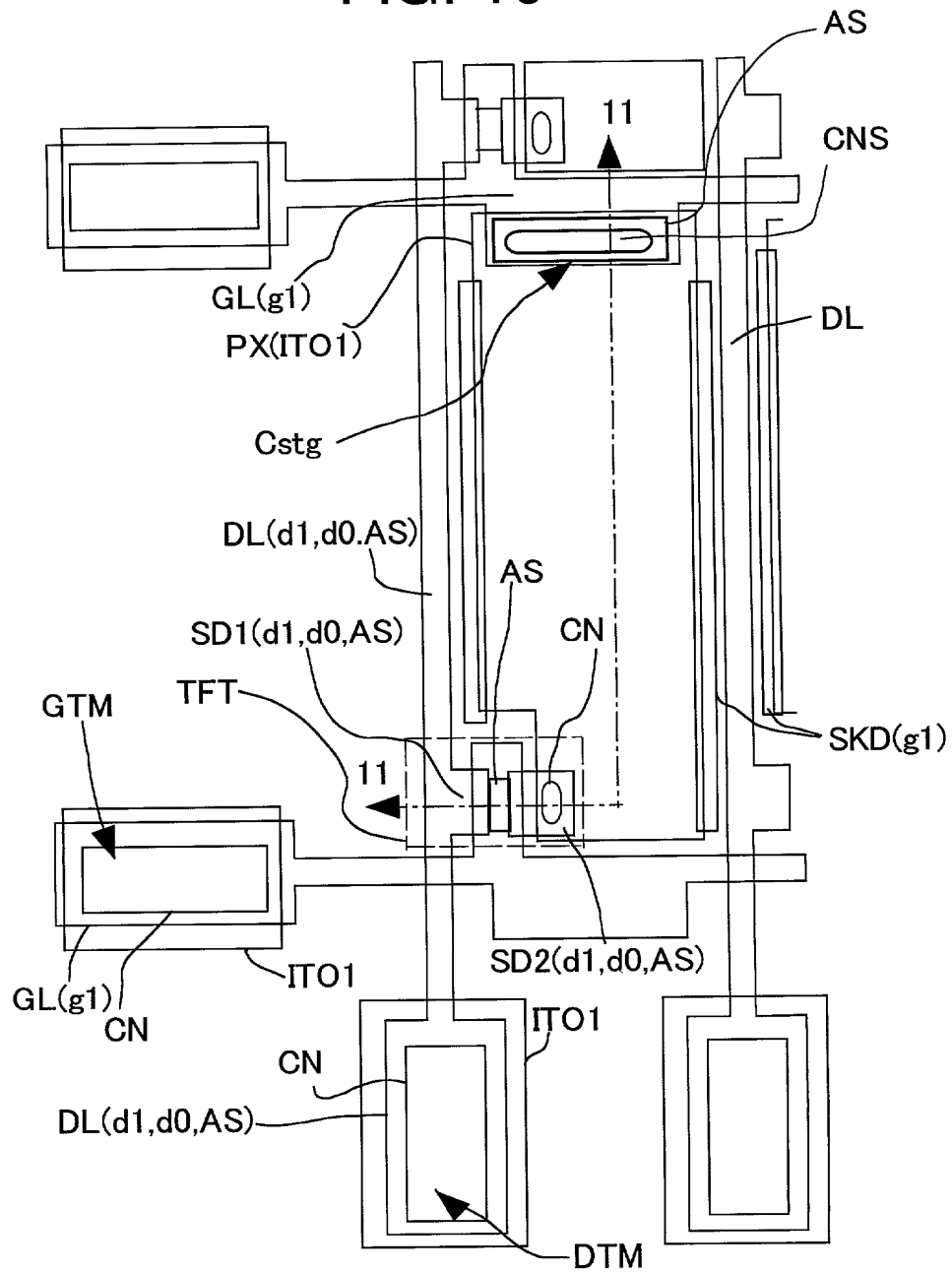
FIG. 8B



A cross-sectional view of a semiconductor device. The structure consists of several layers and patterns. From bottom to top, the layers are: SUB1 (substrate), GI (gate insulator), and AS (active layer). On top of the AS layer, there are two main patterns: PSV (poly-silicon) and ITO1 (indium tin oxide). The PSV layer is patterned into a series of rectangular blocks, with a label 'd1' pointing to one of them. The ITO1 layer is patterned into a series of rectangular blocks, with a label 'd0' pointing to one of them. A label 'GL(g1)' points to a layer below the ITO1 pattern. A label 'PRES1' points to a patterned layer on the right side of the device. A label 'd1' also points to a patterned layer on the right side of the device.

A cross-sectional view of a semiconductor device. The structure consists of several layers: a bottom substrate labeled SUB1, followed by a gate insulator layer GI, and an active layer AS. On top of the AS layer, there are two main regions: a central region with a pattern labeled PSV and a right-hand region with a pattern labeled PRES1. The PSV region contains a series of steps or terraces. The PRES1 region is a thick, stepped layer on the right. Various other labels indicate specific features and dimensions: d0 and d1 are dimension lines indicating heights or thicknesses; GL(g1) is a layer within the PSV region; and PX(ITO1) is a layer on the right side of the device.

FIG. 10



[illegible]

FIG. 12B

A cross-sectional view of a semiconductor device. The structure includes a substrate (SUB1) with a gate layer (GL(g1)) and a gate insulator (GI). A patterned layer (AS) is formed on top of the gate layer, with regions labeled PRES1 and PRES2. The thickness of the patterned layer is indicated by d0 and d1.

FIG. 12C is a cross-sectional view of a semiconductor device. It shows a TFT (Thin Film Transistor) region and a Cstg (Capacitor) region. The TFT region includes a gate insulator (GI), a gate layer (GL(g1)), a substrate (SUB1), and a channel layer (AS). The Cstg region includes a gate insulator (GI) and a gate layer (GL(g1)). The device is formed on a substrate (SUB1). Labels include PRES1, L, d1, d0, AS, SUB1, GL(g1), GI, and Cstg.

This cross-sectional view illustrates the second embodiment of the liquid crystal display device. The structure features a substrate with a TFT (Thin-Film Transistor) region on the left and a Cstg (Storage Capacitor) region on the right. The TFT region includes a gate insulating layer (GI), a gate electrode (GL(g1)), and a channel layer (SUB1). The Cstg region includes a gate insulating layer (GI), a gate electrode (GL(g1)), and a storage capacitor (Cstg). The liquid crystal layer (LC) is formed between the TFT and Cstg regions. The top surface of the liquid crystal layer is defined by a common electrode (CN) and a pixel electrode (PX(ITO1)). The common electrode (CN) is connected to a common voltage source (Cadd) and is formed by a conductive layer (AS) and a protective layer (PSV). The pixel electrode (PX(ITO1)) is formed by a conductive layer (AS) and a protective layer (PSV). The liquid crystal layer (LC) is formed between the common electrode (CN) and the pixel electrode (PX(ITO1)). The liquid crystal layer (LC) is formed between the common electrode (CN) and the pixel electrode (PX(ITO1)).

FIG. 15A

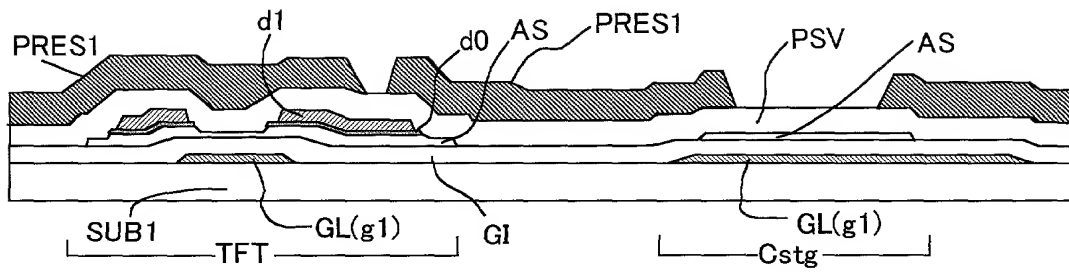


FIG. 15B

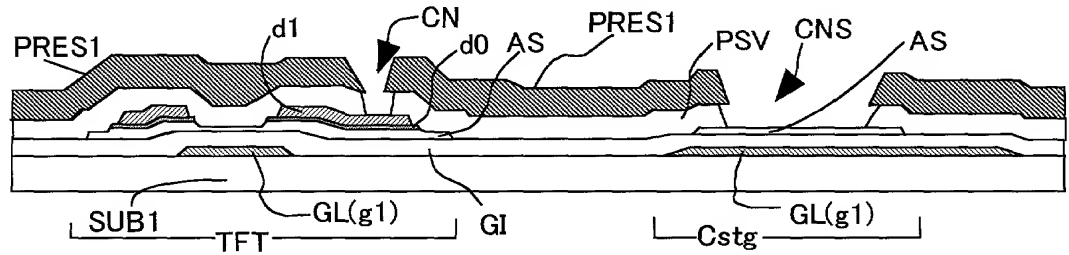


FIG. 15C

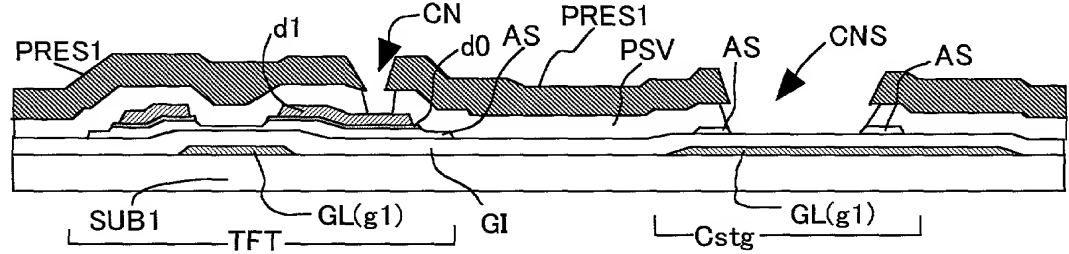


FIG. 16

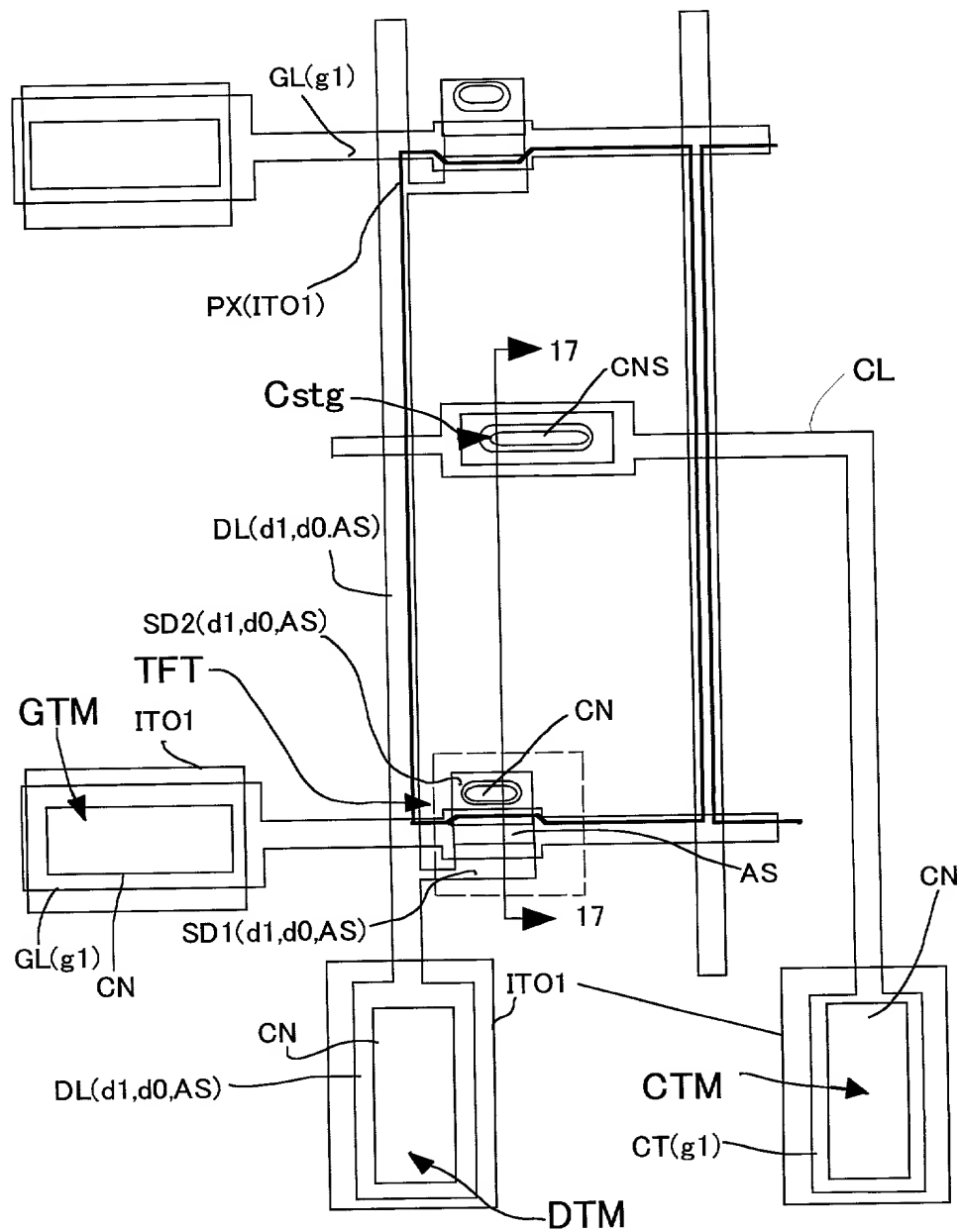


FIG. 17

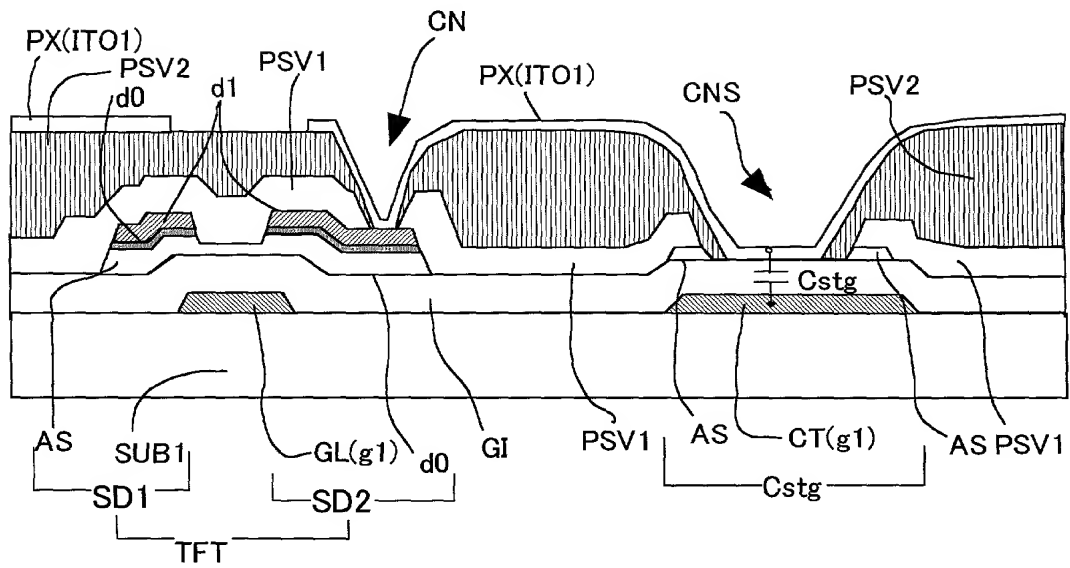


FIG. 18A

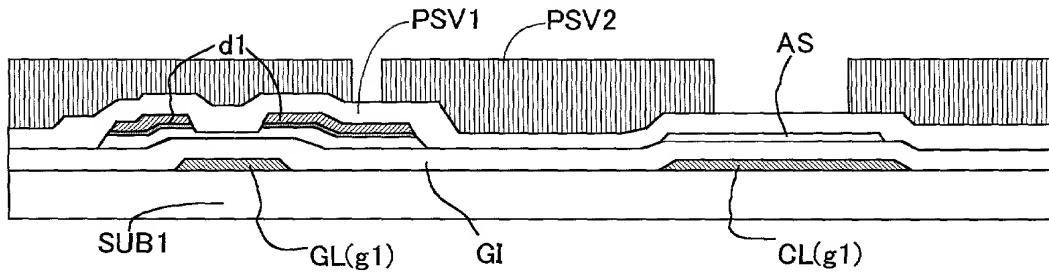


FIG. 18B

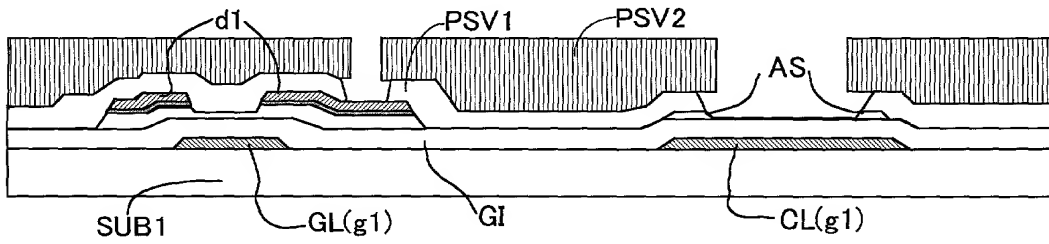


FIG. 18C

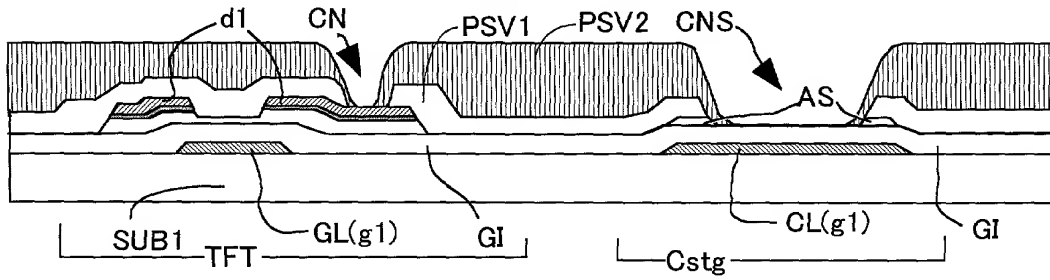


FIG. 19

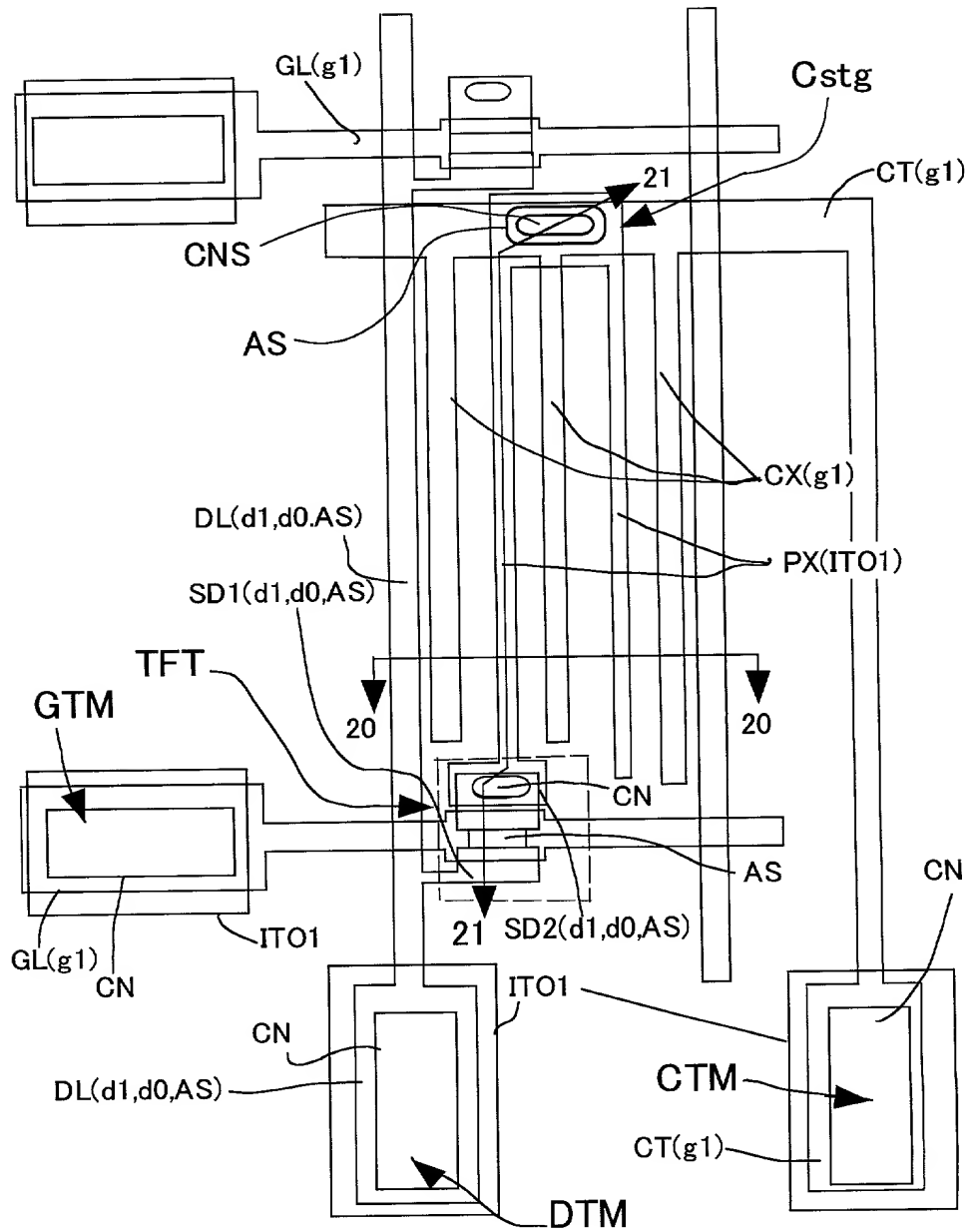


FIG. 20

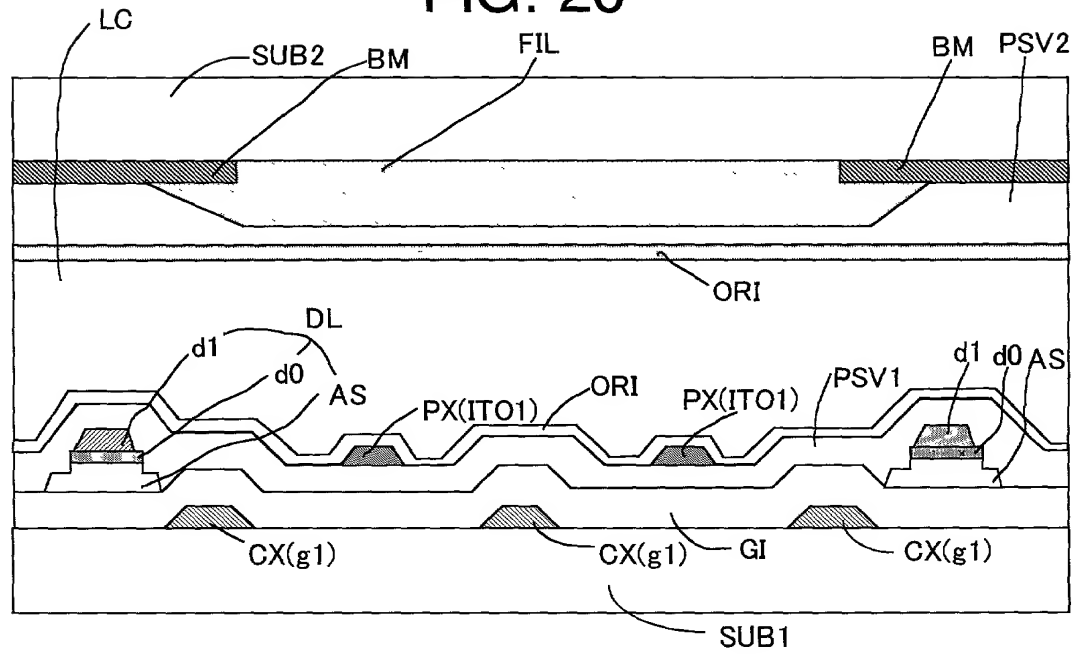


FIG. 21

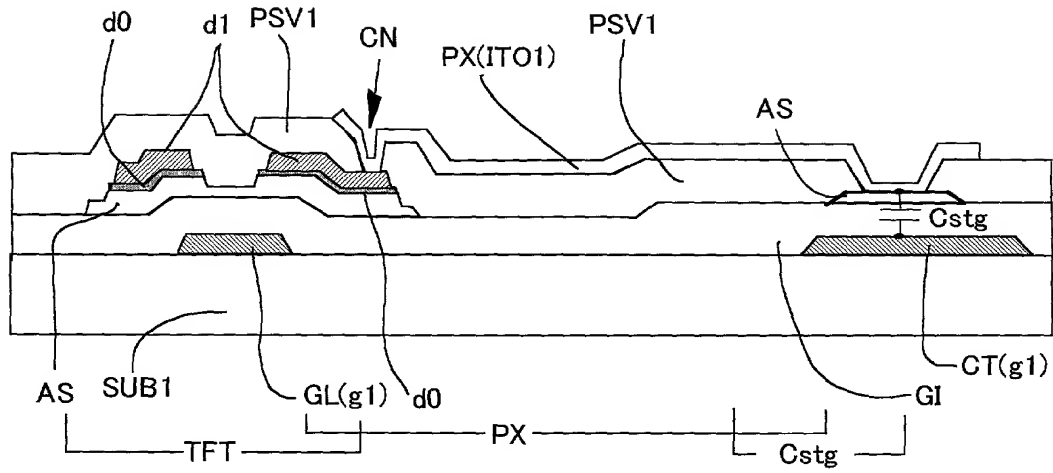
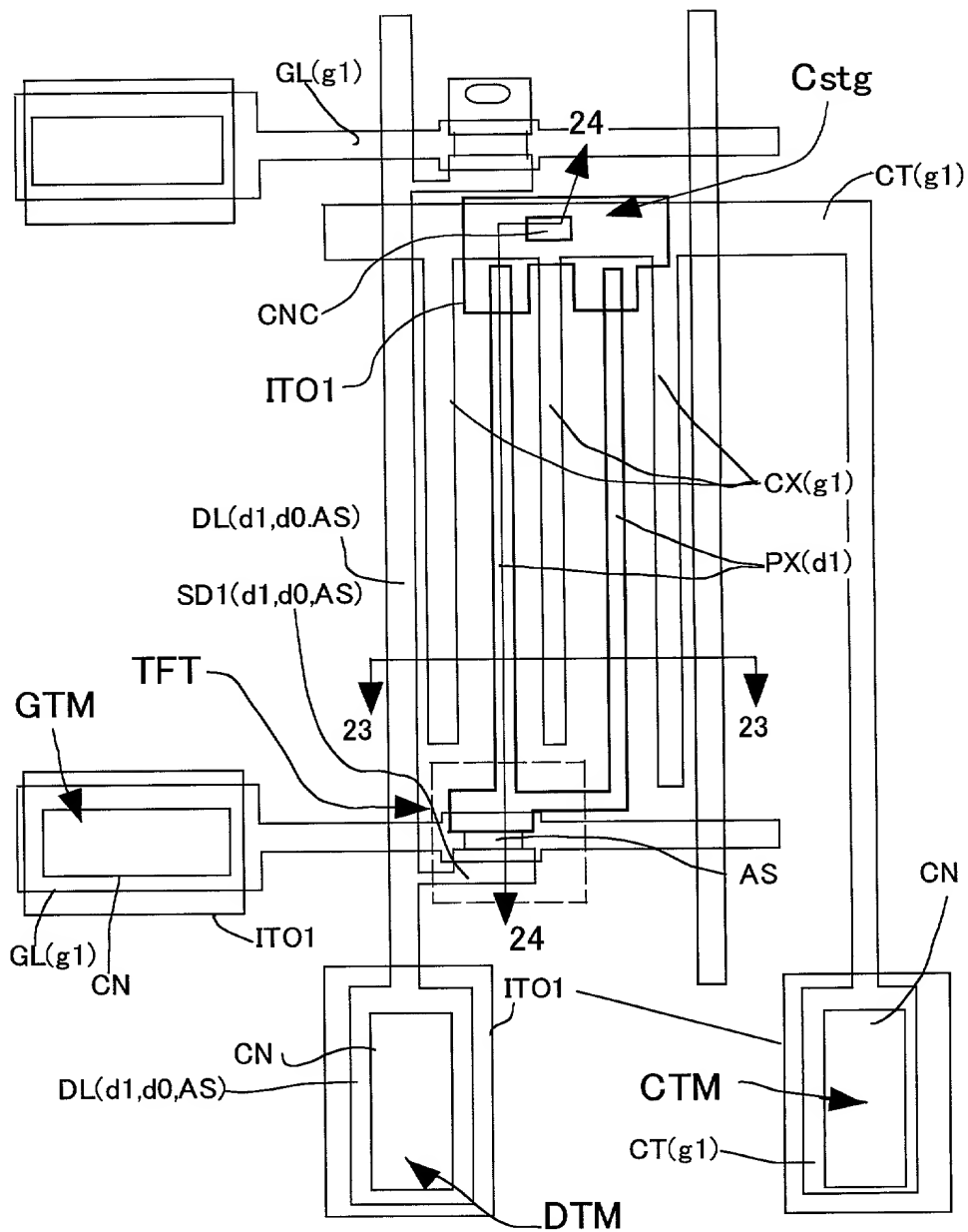
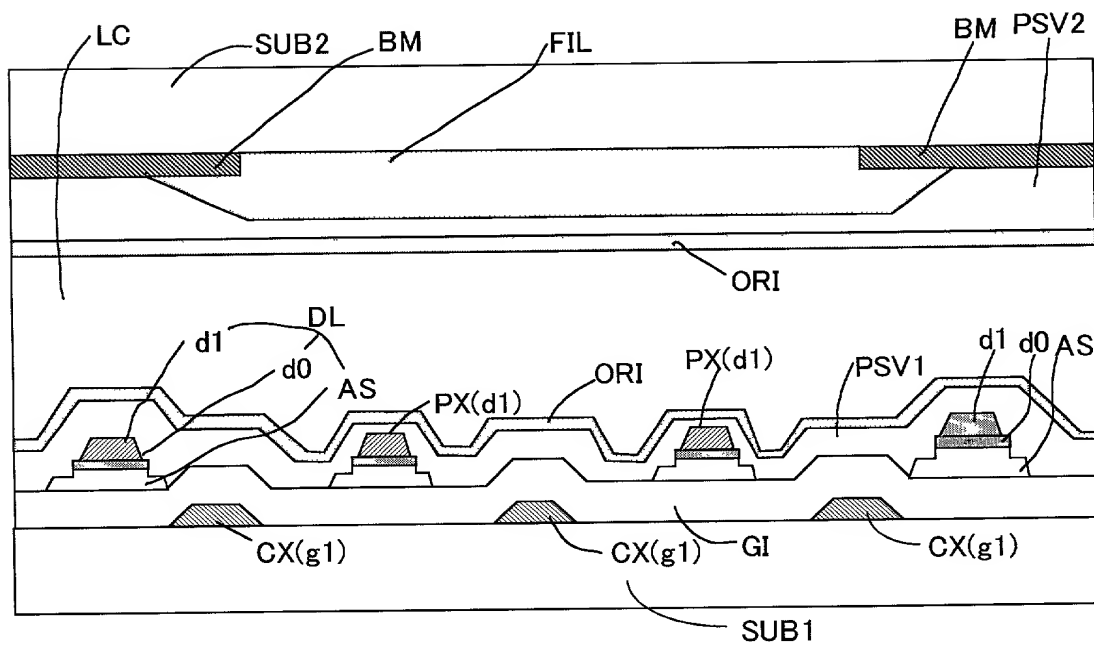


FIG. 22



[illegible]

1970-1971	1972-1973	1974-1975	1976-1977	1978-1979	1980-1981	1982-1983	1984-1985	1986-1987	1988-1989	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009	2010-2011	2012-2013	2014-2015	2016-2017	2018-2019	2020-2021	2022-2023	2024-2025	2026-2027	2028-2029	2030-2031	2032-2033	2034-2035	2036-2037	2038-2039	2040-2041	2042-2043	2044-2045	2046-2047	2048-2049	2050-2051	2052-2053	2054-2055	2056-2057	2058-2059	2060-2061	2062-2063	2064-2065	2066-2067	2068-2069	2070-2071	2072-2073	2074-2075	2076-2077	2078-2079	2080-2081	2082-2083	2084-2085	2086-2087	2088-2089	2090-2091	2092-2093	2094-2095	2096-2097	2098-2099	2100-2101	2102-2103	2104-2105	2106-2107	2108-2109	2110-2111	2112-2113	2114-2115	2116-2117	2118-2119	2120-2121	2122-2123	2124-2125	2126-2127	2128-2129	2130-2131	2132-2133	2134-2135	2136-2137	2138-2139	2140-2141	2142-2143	2144-2145	2146-2147	2148-2149	2150-2151	2152-2153	2154-2155	2156-2157	2158-2159	2160-2161	2162-2163	2164-2165	2166-2167	2168-2169	2170-2171	2172-2173	2174-2175	2176-2177	2178-2179	2180-2181	2182-2183	2184-2185	2186-2187	2188-2189	2190-2191	2192-2193	2194-2195	2196-2197	2198-2199	2200-2201	2202-2203	2204-2205	2206-2207	2208-2209	2210-2211	2212-2213	2214-2215	2216-2217	2218-2219	2220-2221	2222-2223	2224-2225	2226-2227	2228-2229	2230-2231	2232-2233	2234-2235	2236-2237	2238-2239	2240-2241	2242-2243	2244-2245	2246-2247	2248-2249	2250-2251	2252-2253	2254-2255	2256-2257	2258-2259	2260-2261	2262-2263	2264-2265	2266-2267	2268-2269	2270-2271	2272-2273	2274-2275	2276-2277	2278-2279	2280-2281	2282-2283	2284-2285	2286-2287	2288-2289	2290-2291	2292-2293	2294-2295	2296-2297	2298-2299	2300-2301	2302-2303	2304-2305	2306-2307	2308-2309	2310-2311	2312-2313	2314-2315	2316-2317	2318-2319	2320-2321	2322-2323	2324-2325	2326-2327	2328-2329	2330-2331	2332-2333	2334-2335	2336-2337	2338-2339	2340-2341	2342-2343	2344-2345	2346-2347	2348-2349	2350-2351	2352-2353	2354-2355	2356-2357	2358-2359	2360-2361	2362-2363	2364-2365	2366-2367	2368-2369	2370-2371	2372-2373	2374-2375	2376-2377	2378-2379	2380-2381	2382-2383	2384-2385	2386-2387	2388-2389	2390-2391	2392-2393	2394-2395	2396-2397	2398-2399	2400-2401	2402-2403	2404-2405	2406-2407	2408-2409	2410-2411	2412-2413	2414-2415	2416-2417	2418-2419	2420-2421	2422-2423	2424-2425	2426-2427	2428-2429	2430-2431	2432-2433	2434-2435	2436-2437	2438-2439	2440-2441	2442-2443	2444-2445	2446-2447	2448-2449	2450-2451	2452-2453	2454-2455	2456-2457	2458-2459	2460-2461	2462-2463	2464-2465	2466-2467	2468-2469	2470-2471	2472-2473	2474-2475	2476-2477	2478-2479	2480-2481	2482-2483	2484-2485	2486-2487	2488-2489	2490-2491	2492-2493	2494-2495	2496-2497	2498-2499	2500-2501	2502-2503	2504-2505	2506-2507	2508-2509	2510-2511	2512-2513	2514-
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